

PATENT
Atty. Dkt. No. ATT 2003-0062

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-6 (Canceled)

7. (Currently Amended) ~~The method of claim 4 A method of configuring a traffic network, comprising:~~
~~obtaining information about a plurality of nodes and a plurality of links in the traffic network;~~
~~identifying possible origin-destination pairs;~~
~~computing an optimum oblivious ratio of the traffic network; and~~
~~configuring the traffic network in accordance with the computed oblivious ratio, wherein said computing the optimum oblivious ratio is performed by solving a linear program, wherein the oblivious ratio is computed using a single LP with O(mn^2) variables and O(nm^2) constraints.~~

8. (Currently Amended) The method of claim 7, wherein the number of $O(nm^2)$ constraints are determined in accordance with:

mm r

$f_{ij}(e)$ is a routing

\forall links l: $\sum_m cap(m) \pi(l,m) \leq r$

\forall links l, \forall pairs i → j:

$$f_{ij}(l)/cap(l) - s_l^+(l,j) + s_l^-(l,j) = p_l(l,j)$$

\forall links l, \forall nodes l, \forall edges e = j → k:

$$\pi(l, link-of(e)) + p_l(i,j) - p_l(i,k) \leq 0$$

\forall links l, m: $\pi(l,m) \leq 0$

\forall links l, \forall nodes i: $p_l(i,i) = 0$

\forall links l, \forall nodes i, j: $p_l(i,j) \leq 0$

PATENT
Atty. Dkt. No. ATT 2003-0062

Claims 9-14 (Canceled)

15. (Currently Amended) The method of claim 12 A method of configuring a traffic network, comprising:

obtaining information about a plurality of nodes and a plurality of links in the traffic network;

identifying possible origin-destination pairs;

computing an optimum network routing; and

configuring the traffic network in accordance with the computed optimum network routing, wherein said computing the optimum network routing is performed by solving a linear program, wherein the optimum network routing is computed using a single LP with $O(mn^2)$ variables and $O(nm^2)$ constraints.

16. (Currently Amended) The method of claim 15, wherein the number of $O(nm^2)$ constraints are determined in accord accordance with:

$mm r$

$f_{ij}(e)$ is a routing

\forall links l : $\sum_m \text{cap}(m) \pi(l, m) < r$)

\forall links l , \forall pairs $i \rightarrow j$:

$f_{ij}(l)/\text{cap}(l) - s_i^+(l, j) + s_i^-(l, j) = p_l(i, j)$

\forall links l , \forall nodes l , \forall edges $e = j \rightarrow k$:

$\pi(l, \text{link-of}(e)) + p_l(i, j) - p_l(i, k) \leq 0$

\forall links l, m : $\pi(l, m) \leq 0$

\forall links l , \forall nodes i : $p_l(i, i) = 0$

\forall links l , \forall nodes i, j : $p_l(i, j) \leq 0$

Claims 17-19 (Canceled)

20. (Currently Amended) The traffic network of claim 17 A traffic network comprised of:

PATENT
Atty. Dkt. No. ATT 2003-0062

a plurality of routers that support path-based routing and a plurality of links that connect the plurality of routers, wherein each path-based routing is configured in accordance with an oblivious routing configuration based on the plurality of routers and links, wherein the oblivious routing configuration is derived by identifying possible origin-destination pairs, computing an optimum network routing based on linear constraints placed on origin-destination pair demands, and configuring the path-based routing in accordance with the optimum network routing, wherein the optimum network routing is computed using a single LP with O(mn^2) variables and O(nm^2) constraints.

Claims 21-27 (Canceled)